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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/033,939	12/18/2001	Mitsuo Ukechi	KPO104	8987

25271 7590 07/16/2003

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EXAMINER

RAHLL, JERRY T

ART UNIT PAPER NUMBER

2874

DATE MAILED: 07/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/033,939

Applicant(s)

UKECHI ET AL.

Examiner

Jerry T Rahll

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_\_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-13 is/are allowed.
- 6) ☒ Claim(s) 1-7 and 14-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-2, 5-7, 14 and 17-18 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,238,100 to Sasaki et al.

3. Sasaki et al. describes and optical device package having a substrate (12) having mounted on one side optical devices (13) and having positioning parts (15) formed in one side for defining positions of optical axes of the optical devices, a case (11) with the substrate housed within, optical connector ferrules (16a) fitted in windows (11a) formed in two opposite side walls of the case, flexible waveguides (17) held at one end in optical fiber receiving holes in the optical connector ferrule and the other ends extending into the case and positioned in the positioning parts to couple with the optical devices and ferrule couplers (52) on the end faces of the optical connector ferrule for coupling fibers held by an externally connecting connector ferrules (50) to the flexible optical waveguides held by the connecting ferrules (see Figures 2-5 and Columns 5-7).

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4. Further, Sasaki et al. describes the substrate as a semiconductor substrate (Column 2) and the positioning parts as V grooves cut in the semiconductor substrate parallel to the optical axes of the optical devices (Column 7).

5. Further, Sasaki et al. describes the ferrule coupler having pins projecting from one of the ferrules and receiving holes made in the other ferrule (Column 6).

***Claim Rejections - 35 USC § 103***

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 3 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki et al. as applied to claim 1 above, and further in view of Understanding Fiber Optics by Hecht.

8. Sasaki et al. describes the optical device package as discussed above. Sasaki et al. does not specifically describe the use of graded index fibers that focus the light emitted from the fiber. Sasaki et al. simply refers to optical fibers. Hecht describes graded index fibers that are used for focusing emitted light (see page 403). Hecht also describes that graded index fibers are used commonly in optical systems. Therefore, it would have been obvious to one of ordinary skill in the art to use the graded index fibers described by Hecht to focus the emitted light for use in an optical system.

9. Claims 4 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sasaki et al. as applied to claim 1 above, and further in view of U.S. Patent No. 5,757,993 to Abe.

10. Sasaki et al. describes the optical device package as discussed above. Sasaki et al. does not specifically describe the use of graded index fibers that focus the light emitted from the fiber. Sasaki et al. simply refers to optical fibers. Abe describes the use of TEC fibers in optical

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systems to focus the light emitted from the end better than a narrow-core fiber in coupling with other optical devices (see Col3 Lns 5-40). Therefore, it would have been obvious to one of ordinary skill in the art to use the TEC fibers described by Abe to focus the emitted light for use in an optical system.

*Allowable Subject Matter*

11. Claims 8-13 are allowed.
12. Claims 8-13 describe an optical device with the limitations described above. Further, claims 8-13 describe any pair of the optical fibers held in the externally connecting optical connector ferrules coupled together by means of the flexible optical waveguides without adjusting offset in alignment of the axes of the pair of optical fibers.

*Conclusion*

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

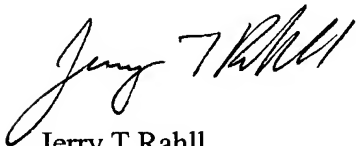
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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerry T Rahll whose telephone number is (703) 306-0031. The examiner can normally be reached on M-F (8:00-5:30), with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (703) 308-4819. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Jerry T Rahll  
July 11, 2003

  
**AKM ENAYET ULLAH**  
**PRIMARY EXAMINER**